Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

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1. (currently amended) A micromachined device ~~for receiving and retaining a liquid droplet at a desired site, the device~~ comprising:

a substrate having an upper surface; ~~and~~

a three-dimensional, thin film well patterned at the upper surface of the substrate wherein the well is capable of receiving and retaining a known quantity of liquid ~~at the desired site through surface tension~~;and

a membrane disposed in the three-dimensional, thin film well.

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2. (currently amended) A micromachined device ~~for receiving and retaining at least one liquid droplet at a desired site, the device~~ comprising:

a substrate having an upper surface;

a first three-dimensional, thin film well patterned at the upper surface of the substrate wherein the first well is capable of receiving and retaining a first known quantity of liquid ~~at the desired site through surface tension~~; ~~and~~

a second three-dimensional, thin film well patterned at the upper surface of the substrate wherein the second well is patterned outside ~~and concentric to~~ of the first well wherein the second well is capable of receiving and retaining a second known quantity of liquid ~~at the desired site through surface tension~~;

an internal membrane disposed in the first three-dimensional, thin film well; and

an external membrane disposed over the first internal membrane and confined by the second three-dimensional, thin film well.

3. (currently amended) A micromachined device ~~for receiving and retaining a plurality of separate liquid droplets at desired sites, the device~~ comprising:

a substrate having an upper surface; ~~and~~

an array of three-dimensional, thin film wells patterned at the upper surface of the substrate wherein each of the wells is capable of receiving and retaining a known quantity of liquid ~~at one of the desired sites through surface tension~~; and

a set of membranes disposed in the array of three-dimensional, thin film wells, respectively.

4. (currently amended) A micromachined device ~~for receiving and retaining a plurality of separate liquid droplets at desired sites, the device~~ comprising:

a substrate having an upper surface;

a first array of three-dimensional, thin film wells patterned at the upper surface of the substrate wherein each of the wells is capable of receiving and retaining a known quantity of liquid; ~~at one of the desired sites through surface tension; and~~

a second array of three-dimensional, thin film wells patterned at the upper surface of the substrate wherein each well of the second array of wells is patterned outside ~~and concentric to~~ of one well of the first array of wells to receive and retain a second known quantity of liquid ~~at the desired site through surface tension~~;

a first set of membranes disposed in the first array of three-dimensional, thin film wells, respectively; and

a second set of membranes disposed over the first set of membranes, respectively, and confined by the second array of three-dimensional, thin film wells, respectively.

5. (original) The device as claimed in claim 3 wherein each of the wells is a ring.

6. (currently amended) The device as claimed in claim 3 wherein the device is a microsensor ~~and wherein each of the desired sites is a sensing site~~.

7. (original) The device as claimed in claim 6 wherein the microsensor is a solid-state, liquid chemical sensor.

8. (original) The device as claimed in claim 6 wherein the microsensor is a gas sensor.

9. (original) The device as claimed in claim 6 wherein the microsensor is an optical sensor.

10. (original) The device as claimed in claim 3 wherein the device is a biomedical test plate.

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11. (original) The device as claimed in claim 3 wherein each of the wells is made of a photo-patternable material.

12. (currently amended) ~~The~~ A micromachined device ~~as claimed in claim 3~~ comprising:

a substrate having an upper surface; and

an array of three-dimensional, thin film wells patterned at the upper surface of the substrate wherein each of the wells is capable of receiving and retaining a known quantity of liquid;

wherein ~~the photo-patternable material~~ each of the wells is made of a negative photo-patternable material.

13. (original) The device as claimed in claim 12 wherein the negative photo-patternable material is a polymer.

14. (original) The device as claimed in claim 13 wherein the polymer is a polyimide.

15. (original) The device as claimed in claim 12 wherein the negative photo-patternable material is an epoxy.

16. (original) The device as claimed in claim 15 wherein the epoxy is SU8.

17. (original) The device as claimed in claim 3 wherein the substrate is a semiconductor substrate.

18. (original) The device as claimed in claim 17 wherein the semiconductor substrate includes a silicon wafer.

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19. (original) The device as claimed in claim 18 wherein the semiconductor substrate further includes a layer of insulating material on which the wells are patterned.

20. (original) The device as claimed in claim 3 wherein the substrate is made of a material other than a semiconductor material.

21. (currently amended) The device as claimed in claim 3 wherein the device is a potentiometric liquid chemical sensor ~~and wherein each desired site is a sensing site~~.

22. (currently amended) The device as claimed in claim 3 wherein the device is an integrated ion sensor ~~and wherein each desired site is a sensing site~~.

23. (currently amended) ~~The~~ A micromachined device ~~as claimed in claim 3~~ comprising:

a substrate having an upper surface; and

an array of three-dimensional, thin film wells patterned at the upper surface of the substrate wherein each of the wells is capable of receiving and retaining a known quantity of liquid;

wherein each of the wells includes a side wall having an outside corner with a small radius to prevent ~~it's~~ the liquid ~~droplet~~ from flowing down outside the side wall.

24. (currently amended) A method of making a micromachined device ~~which is capable of receiving and retaining at least one liquid droplet, the method~~ comprising:

providing a substrate having a layer of radiation-sensitive material formed thereon; ~~and~~

patterning at least one three-dimensional, thin film well from the layer of material wherein the at least one well is capable of receiving and retaining a known quantity of liquid ~~through surface tension~~; and

dispensing a first membrane solution into the well.

25. (currently amended) The method as claimed in claim 24 further comprising patterning a three-dimensional, thin film well from the layer of material outside ~~and concentric~~ to the at least one well at the same time as patterning the at least one well.

26. (original) The method as claimed in claim 24 wherein the layer of material is photo-patternable.

27. (canceled)

28-37. (withdrawn)

38. (canceled)

39. (new) The method as claimed in claim 24 wherein the first membrane solution is a polymeric membrane solution.

40. (new) The method as claimed in claim 24 wherein the first membrane solution is an aqueous solution.

41. (new) The method as claimed in claim 24 wherein the first membrane solution is a solvent-based solution.

42. (new) The method as claimed in claim 24 wherein the membrane is an optical membrane.

43. (new) The method as claimed in claim 25, the method further comprising:

dispensing a second membrane solution over the first membrane solution and into the thin film well outside of the at least one well.

44. (new) The method as claimed in claim 43 wherein the first membrane solution is an internal filling solution.

45. (new) The method as claimed in 43 wherein the second membrane solution is an external binding layer.

46. (new) The method as claimed in claim 43 wherein the second membrane solution has ionophores, enzymes, antibodies or functional groups trapped therein.